



Programming Club

Bringing programming to schools

A proposal for the creation of programming clubs within secondary schools.

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1 Background

At Wolf Software we are aware that we are in a fortunate position and with that in mind we, as a business, like to be able to give back whenever possible, this includes free software, free on line tools and more. We are also very keen to give back to the local community, software community and the IT industry as a whole.

1.1 Working with schools

We are interested in working with local schools to assist them in developing out of hours programming clubs for their students to expand on the existing school level programming curriculum. We can provide professional programmers to work with existing staff to help these clubs start and also provide on-going support in the delivery of these clubs.

1.2 Safeguarding

All Wolf Software staff involved in running the club will be CRB cleared in advance, in line with your school requirements (as advised). In addition to this we would require a member of the IT staff (curriculum or support) to be present for the duration of the club. We will not be using any student details, information, photographs etc. in any form outside the requirements to run the club. A register of names will be required to be taken and maintained by the member of staff supporting the club. We will work with you prior to the commencement of the club to ensure safeguarding measures are in place and understood by all involved.

2 The proposal

This proposal is for Wolf Software to work with the IT Network manager and Curriculum leader at your school to support the development of a programming course that can be delivered as an out of hours club. Providing enrichment opportunities for the more able, gifted and talented pupils that are interested in developing some real-world programming skills.

The specific details of the courses will need to be created in collaboration with the IT Network Manager and Curriculum leader in order to ensure that the material being delivered can be accessed via your network without causing issues to the current infrastructure or integrity of the network as well as to ensure the enrichment we are offering meets the requirements for the successful delivery of the new computer science curriculum.

2.1 Structure of the course

The course will be split into a number of modules, some of which will be required, others which the students will be able to select from and attend at the appropriate time.

A required module would be needed to begin the course, which would include an introduction to programming, different types of programming languages, the pros and cons of the languages and ways to select the right tool for the right job. This would cover the first 4 sessions and would be run once a term to allow new students to join the course throughout the year.

The rest of the course would be offered as a set of options that students can select from, for example:

- Introduction to PHP
- Introduction to C
- Introduction to Perl
- Introduction to JavaScript / jQuery
- Introduction to Ruby
- Introduction to Python

Students would simply select the modules that they are interested in and attend the classes on the timetabled days. We are also looking at the creation of an on line area (such as Moodle) for students to be able to gain access to the teaching materials, programming assignments, help guides and other course resources.

As well as introduction courses, we would also offer intermediate courses and advanced courses, so that there is a steady progression in skill development and enrichment for the students. Staff would also be welcome to attend if interested as part of their continued professional development.

3 Real world projects

Wolf Software has worked on projects with many leading brand companies such as Google (analytics), Coca-Cola and Heinz, to name a few brands – these can be used to draw examples from when explaining good industry standard practices and demonstrate some of the exciting opportunities that exist in a modern, digital society.

Students will be able to gain understanding of how a software solution is designed, built and supported in the real world and how it maps directly onto the curriculum; enriching the completion of their own projects and coursework in line with industry requirements.

Students would also have an opportunity to contribute to exemplar testing and feedback sessions to allow them to be involved in the process and show how feedback is used to adjust a product and the importance of testing and listening to a client.

4 Benefits

It is our aim to benefit your school, your staff and more importantly your students through the creation of this club. We want to offer them the opportunity to develop new skills which will not only be of interest to them but will also encourage them to pursue computing at a higher level and to support the staff with the delivery of the new computer science curriculum.

When the club is established and working well, we would like to extend the club and possibly invite students from other schools to attend and further boost the visibility and reputation of the school as an innovator in the delivery of the new computer science curriculum.